

AMENDMENTS TO THE CLAIMS

Please cancel claim 9 as shown below.

Please amend claims 1-8, and 10-23 as shown below.

Please add claim 24 as shown below.

1. (Currently Amended) A LED backlight for an LCD display including pixels,
the said LED backlight comprised comprising:

of an array of LEDs including a sub-array of red LEDs, a sub-array of green LEDs,
and a sub-array of blue LEDs; and

a LED drive and control circuitry circuit regulating a red light output of said sub-
array of red LEDs, a green light output of said sub-arrays of green LEDs, and a blue light
output of said sub-arrays of blue LEDs independently of each other.

2. (Currently Amended) The LED backlight as in Claim 1, wherein the said
array of LEDs provide the a color output for the pixels for the a displayed image of the LCD
display.

3. (Currently Amended) The LED backlight as in Claim 2, wherein the pixels of
the LCD are not color filtered.

4. (Currently Amended) The LED backlight as in Claim 3, wherein the LED
backlight provides a red light, a green light and a blue light to the LCD display in a repeating
cycle, LCD the pixels of the LCD display being addressed to transmit the an amount of the
red light, the green light and the blue light in the a portion of the an image corresponding to
the pixels.

5. (Currently Amended) The LED backlight as in Claim 1, wherein ~~the~~ said drive and control ~~circuitry~~ circuit regulates at least one of ~~the~~ a color point and a color content of ~~the~~ a light output of the LED backlight.

A1
6. (Currently Amended) The LED backlight as in Claim 1, wherein ~~the~~ said drive and control ~~circuitry~~ comprises circuit includes a power regulated converter with control electronics.

7. (Currently Amended) The LED backlight as in Claim 6, wherein ~~the~~ said power regulated converter is a fast pulse converter.

8. (Currently Amended) The LED backlight as in Claim 7, wherein ~~the~~ said fast pulse converter has a response time on the order of microseconds.

9. (Cancelled)

10. (Currently Amended) The LED backlight as in Claim 9 1, wherein the pixels of ~~the~~ sub-arrays are interspersed in a two-dimensional plane.

A2
11. (Currently Amended) The LED backlight as in Claim 9 1, wherein ~~the sub-~~ arrays are comprised of each sub-array is associated with one or more regions of contiguous pixels of the same color.

12. (Currently Amended) The LED backlight as in Claim 9 1, wherein ~~the drive circuitry~~ said drive and control circuit receives as a plurality of input reference signals corresponding to the red light output, the green light output and the blue light output of the LCD backlight, the input reference signals being used by ~~the drive circuitry~~ said drive and control circuit to drive ~~the respective~~ said red sub-array, said green sub-array and said blue sub-arrays sub-array to output a red light, a green light and a blue light corresponding to the respective input reference signals.

13. (Currently Amended) The LED backlight as in Claim 12, wherein the input reference signals received reflect at least part of an image to be displayed.

14. (Currently Amended) The LED backlight as in Claim 13, wherein the input reference signals received are frames of a video signal and its color and intensity content.

15. (Currently Amended) The LED backlight as in Claim 9 1, wherein ~~the drive circuitry~~ said drive and control circuit independently regulates the light output of each sub-array to create a backlight having at least one of a color point and a color temperature that is a function of an image displayed by the LCD display.

16. (Currently Amended) The LED backlight as in Claim 15, wherein the image is at least one frame of a video displayed on the LCD display.

17. (Currently Amended) The LED backlight as in Claim 9 1, wherein ~~the drive circuitry is comprised of~~ said drive and control circuit includes a separate controller for the LEDs of each sub-array.

18. (Currently Amended) The backlight as in Claim 17, wherein each controller for the said LEDs of each sub-array controls at least one switch that regulates ~~the~~ a current to one or more LEDs of ~~the each~~ sub-array.

19. (Currently Amended) The LED backlight as in Claim 9 1, wherein ~~the drive circuitry is comprised of~~ said drive and control circuit includes at least one controller that provides independent control signals for ~~the~~ said LEDs of each sub-array.

20. (Currently Amended) The LED backlight as in Claim 19, wherein ~~the~~ said at least one controller provides control signals that control at least one switch that regulates ~~the~~ a current to one or more LEDs of ~~the said corresponding~~ sub-array.

21. (Currently Amended) The LED backlight as in Claim 9 1, wherein ~~the drive circuitry~~ said drive and control circuit creates at least one of a pulse amplitude modulation of ~~the~~ a current input to ~~the~~ said LEDs in ~~the~~ said sub-arrays, a pulse width modulation of the current input to ~~the~~ said LEDs in ~~the~~ said sub-arrays and a pulse frequency modulation of the current input to ~~the~~ said LEDs in ~~the~~ said sub-arrays.

22. (Currently Amended) The LED backlight as in Claim 21, wherein the at least one of a the pulse amplitude modulation of the current input to ~~the~~ said LEDs in ~~the~~ said sub-arrays, a the pulse width modulation of the current input to ~~the~~ said LEDs in ~~the~~ said sub-arrays and a the pulse frequency modulation of the current input to ~~the~~ said LEDs in ~~the~~ said sub-arrays includes a dc current bias.

A2
23. (Currently Amended) The LED backlight as in Claim 1, further comprising:
wherein the LED backlight is comprised of at least one LED module comprised of
including a plurality of LEDs of one color.

A3
24. (New) A LED backlight for an LCD display comprising:
a primary circuit for cyclically generating a primary voltage;
a first secondary circuit coupled to said primary circuit for receiving a first
secondary voltage, said first secondary circuit including
a first sub-array of LEDs of a first color,
a first sub-array switch having a first ON state for allowing a flow of a first
current through said first sub-array of LEDs and a first OFF state for impeding the flow of the
current through said first sub-array of LEDs, the first current being a function of said first
secondary voltage, and
a first sub-array controller for independently controlling a switching of said
first switch between the first ON state and the first OFF state as a function of said first
secondary voltage; and
a second secondary circuit coupled to said primary circuit for receiving a
second secondary voltage, said second secondary circuit including
a second sub-array of LEDs of a second color,
a second sub-array switch having a second ON state for allowing a flow of a
second current through said second sub-array of LEDs and a second OFF state for impeding
the flow of the current through said second sub-array of LEDs, the second current being a
function of said second secondary voltage, and
a second sub-array controller for independently controlling a switching of said
second switch between the second ON state and the second OFF state as a function of said
second secondary voltage.